Solomon Islands Australia Partnership

SOLOMON ISLANDS INFRASTRUCTURE PROGRAM

Asbestos Awareness

and World Bank Procurement Opportunities

Friday 21 March 2025

Delivered in partnership with the Ministry of Infrastructure Development, Honiara City Council & World Bank

Agenda

Time	Topic
9.00am - 9.15am	Opening remarks and acknowledgement
9.15 - 9:30am	What is asbestos and types of asbestos
9.30am - 9.50am	Identification of asbestos containing materials (ACMs)
9.50am - 10.00am	Asbestos exposure – health hazard
10.0am - 10.30am	Morning tea and group photo
10:30am - 10.50am	Managing asbestos hazards area
10.50am - 11.00am	Proper disposal
11.00am - 11:30am	Guest Speaker: Solomon Kwanairara
11.30pm - 12.30pm	World Bank – Procurement Opportunities
12:30am - 1.30pm	Lunch time
1.30pm - 2.00pm	Wrap up, evaluation & networking

Learning objectives

The learning objectives of this workshop are:

- Learn about asbestos, and why it is dangerous and banned
- Learn how to identify asbestos in buildings and construction
- Know what to do if you suspect or know asbestos is present – who can remove asbestos and how
- How to manage small scale containment or removal of non-friable asbestos e.g. by a homeowner or trades person, in accordance with Solomon Islands regulations

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INTRODUCTION

Lazar Maric
First Secretary Infrastructure
Australian High Commission

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WHAT IS ASBESTOS AND TYPES

Presented by Patteson Fakavai

Architect and Asbestos“B” License Removalist

What is asbestos?

- Asbestos is a naturally occurring fibrous mineral silicate used for their strength and heat resistance
- It is tiny (0.1 to 10 microns), light, and airborne when exposed in the air and cannot be detected by the eye
- It does not dissolve in water nor evaporate
- There are three main types of asbestos:
    1. Chrysotile (white asbestos)
    2. Amosite (brown asbestos)
    3. Crocidolite (blue asbestos)
- Asbestos qualities of strength, flexibility, and chemical and heat resistance, brought many anticipated benefits to the construction, electrical and automobile industries in general
- Asbestos contained material (ACM) is any material, object, or debris that contains asbestos. There were about 3000 or more different ACM products

Types of asbestos

White (Chrysotile)

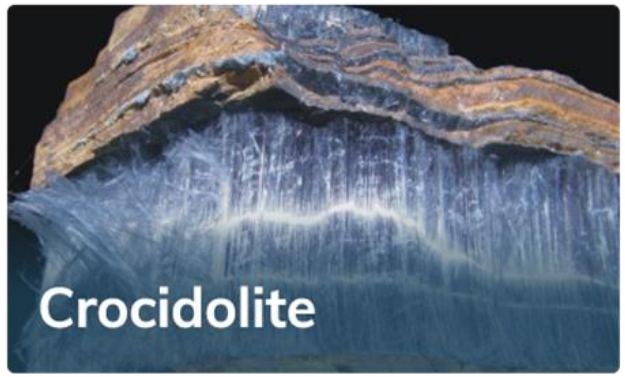
- Most commonly used type of asbestos
- Fibres usually fine and curly in texture
- Often found in cement, brake pads/linings and roofing materials

Brown (Amosite)

- Thin, needle-like fibres
- Commonly used in cement sheets, plumbing and electrical insulation
- Comparatively higher risk of cancer

Blue (Crocidolite)

- Very thin, short and brittle fibres
- Very harmful; easily breaks down and leads to exposure
- Used in paint and loose insulation



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IDENTIFICATION OF ASBESTOS CONTAINING MATERIAL (ACMS)

What is asbestos containing materials (ACMS)?

- The fibres of asbestos are good binders used in cement sheeting and cement pipes, floor tiles and textiles etc.
- Asbestos-containing materials include:
  - flat sheeting used in buildings, cement pipes ,insulation
  - floor tiles, adhesives, Roofing - corrugated sheeting
  - automobile parts such as brake pads
  - textiles
  - textured paints.

Two forms of asbestos

Thousands of asbestos products were used in the Building Industry. The age of buildings and structures can serve as guide to identifying ACM use.

1. **NON-FRIABLE** (Bonded)

   - If asbestos materials are sealed, undisturbed and in good, stable condition they are unlikely to release fibres and pose a health risk.

2. **FRIABLE**

   - If these materials are disturbed or unsealed the fibres can be harmful to your health and the health of anyone who comes in contact with them.

Identifying asbestos

Trained persons should identify asbestos on site or samples of the material can be analysed by independent laboratory.

Bonded Asbestos Containing Materials

These are products generally containing a low percentage of asbestos fibres firmly bounded in a compressed matrix.

Products

- Interior or exterior wall sheeting such as fibro
- Suspended ceiling tiles,
- Water pipes
- Louvers
- Vinyl floor tiles and glue
- Backing in electrical switch boxes
- Friction products such as brake shoes

Identifying asbestos

Friable asbestos

Referred to as un-bonded asbestos-containing material. It is dry and can be reduced to powder by hand pressure. This type of asbestos is high risk as it has the potential to release high quantities of asbestos fibres into the air when disturbed.

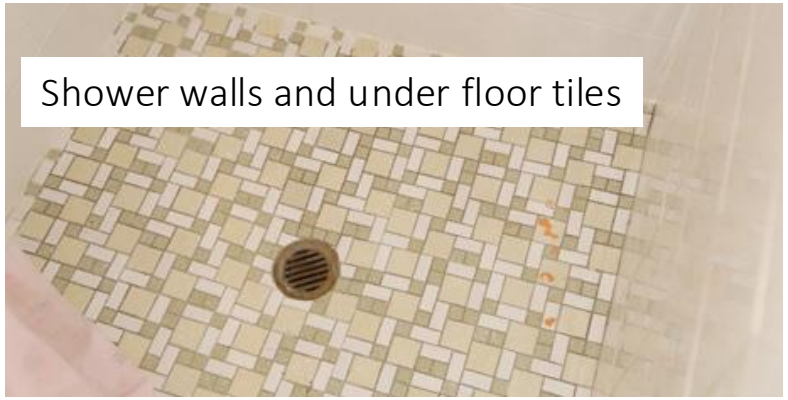
Products

- Sprayed on thermal insulation
- Sprayed on fireproofing
- Pipe lagging
- Boiler insulation
- Acoustical plaster soundproofing

Where do you find asbestos?

Where do you find asbestos?

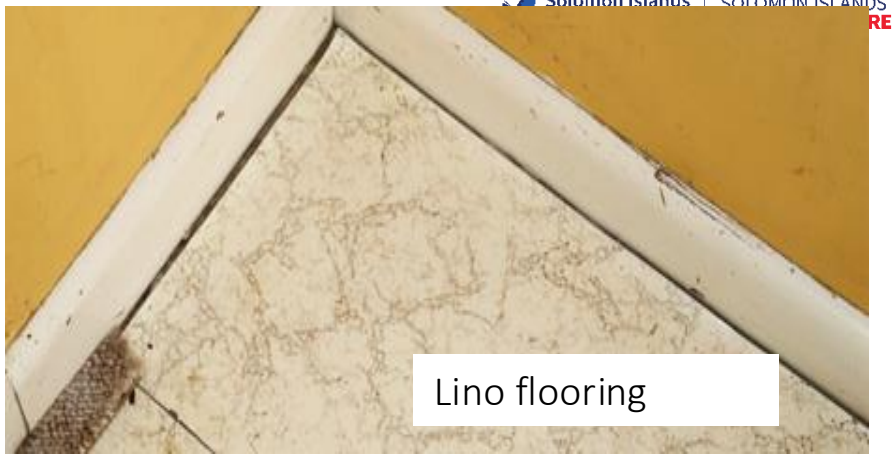
Wet and heat areas are the most common places to find asbestos-containing products inside the home.



Kitchen cladding and tile splashback

Where do you find asbestos?

Bedroom walls and joinery strips



Lino flooring

Under carpet in underlay and glue

Vermiculite ceiling finish

Glue and backing board behind tiles

Forms of asbestos

Loose ceiling insulation - friable

Well painted and sealed internal sheeting, pipes or secure floor coverings - non -friable

Edges and surface of solid external cladding sealed with paint –non-friable

Asbestos exhaust pipe – failed paint coating - friable

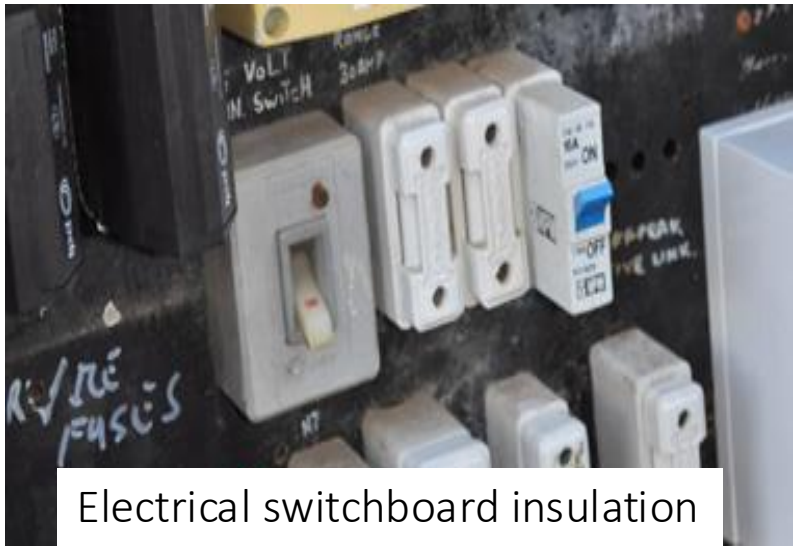
Forms of asbestos

Broken and/or unsealed edges to fibro sheeting - friable

External / internal peeling paint exposing loose asbestos fibres - friable

Where is asbestos found?

Where is asbestos found?


Electrical switchboard insulation


Fencing


Insulation


Under eaves

Where is asbestos found?


Fibro sheeting


Architraves and cornices


Artificial brick cladding


External joining strips

Where is asbestos found?

Insulation

Under eaves

Exhaust or hot pipework insulation

Spray insulation around steel beams and columns

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Asbestos Exposure – Health Hazard

Asbestos in Solomon Islands

- Widely used until the 1980s in Australia, and until 1990 in Solomon Islands
- Phased out from 1990 and banned in 2000s
- Still present in many existing buildings and poses a high risk if exposed
- Around 80% of homes in Solomon Islands built before the 1980s may contain asbestos
- It is important for construction company workers, contractors, property owners and the public to beware and able to identify potential asbestos related materials.

Asbestos exposure and health risk

- Asbestos is extremely fibrous and the tiny fibres are easily breathed in where they can become trapped in the lungs.
- Because of the risk of serious illness, it's important to know how to identify asbestos in the work site.
- Those most likely to have been exposed to asbestos in the workplace include: Builders, plumbers, insulators, electricians, mechanics

Asbestos exposure and health risk

- Being exposed to asbestos increases the risk of developing cancers of the lung, ovary and larynx as well as mesothelioma (cancer of the lining of the lung).
- The risk of cancer from asbestos varies, depending upon the:
  - length of time you are exposed to airborne asbestos fibres
  - amount of asbestos fibres in the air breathed
  - frequency of exposure to asbestos fibres
  - time since exposure occurred
  - age at which exposure occurred
  - type and size of asbestos fibres.

Morning Tea Break
&
Group Photo

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MANAGING ASBESTOS HAZARDS AREA

Current regulations and procedures

CONTROL PLAN REQUIREMENTS

Any company doing demolition works on an old building site MUST notify MID and prepare a **Control Plan for approval (refer to NBC)**

Control Plan:

- Purpose – to minimise exposure, safe work practises and to prevent asbestos contamination during and after removal.
- Content:
  - Project information
  - Education and training
  - Work Methods Statements

New National Building Code

NATIONAL BUILDING CODE REQUIREMENTS

BP2.1.1 Design and Planning of Demolition

The **method and sequence of demolition** must be planned in detail with due allowance for the following:

(e) **the presence of either Bonded Asbestos Material (BAM- asbestos fibres compressed in fibro sheets) or Friable Asbestos Material (FAM -unbounded asbestos containing material)**

B2.4 Buildings Containing Asbestos

Where buildings to be demolished include either Bonded Asbestos Material (BAM - asbestos fibres compressed in fibro sheets) or Friable Asbestos Material (FAM - unbonded asbestos containing material) an **Asbestos Removal Control Plan** must be prepared and **approved by the Approval Authority** and **removed** in accordance with the Plan **by an Asbestos removal contractor approved by the Approval Authority**.

Where **partial demolition, refurbishment or maintenance** site activities require the removal of non-friable asbestos containing material or require other work activities that involve the disturbance of any asbestos containing materials, a **'safe work method statement' approved by the Approval Authority** shall be prepared and complied with by the contractor responsible.

Managing asbestos hazards at the job site

SAFE WORK PRACTISES INCLUDE:

- Prepare a SAFE WORK METHOD STATEMENT (SWMS) and approved by Approved Authority
- Precautions must be taken to eliminate the possibility of contamination during the removal operation
- Notice to the near by residents or tenants of the works being done
- Once you have the ALL CLEAR from the asbestos removalists, contractors can continue the work.

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Hazardous Waste Disposal

Presented by HCC Waste Management and Control Division

HONIARA CITY COUNCIL

Disposing at the Ranadi Landfill

- The Honiara City Council manages the Ranadi Landfill, which is to be used during the day Monday to Friday.
- When disposing waste, follow the instructions of the two Officers at the dumpsite who will instruct you where and how to dispose of your rubbish.
- You are expected to follow their instructions and cooperate responsibly, to make sure we have safe disposal of waste.
- The Landfill is currently under rehabilitation where the Council is improving the management and disposal at the dumpsite.

Hazardous materials

- Asbestos is to be wrapped properly in plastic and buried in the allocated area.
- Pay a license for an annual permit to run “Asbestos removal service” - $2800
- Pay tipping fees per load at a rate of $2000 per load
- Inform our landfill team of intended dates for tipping
- Our team will prepare the site for tipping and then the company can come in to tip the waste on the date they have stated.
- Follow the instructions of the Landfill Officers or call the Landfill Supervisor at 26346 .

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GUEST SPEAKER

Solomon Kwanairara

Jarbes Enterprises

Asbestos Removal and Building Demolition

Company Background

- **Jarbes Enterprises** is a registered company in 2005
- Two main works: House sanding and varnishing and asbestos removal and building demolition works
- Managing Director trained on Asbestos Training and Assessment with an Attainment Certificate of “B” Class license on 10th August 2007
- Jarbes Enterprise has more than 8 years experience in removal and demolition of asbestos in buildings in five provinces – Isabel, Makira, Western, Malaita and Honiara.

Burning of Gizo Hospital 2016

The burning of Gizo Hospital, 2016 , sparked the danger of asbestos materials in the burnt complex. Residents were warned of toxic chemicals and materials that can cause respiratory diseases. SPREP and local authorities did a massive clear up.

Damaged asbestos flooring materials are safely removed at a building adjacent to the site of the fire. Photo: Brad Wallace. Photo: Supplied/ Brad Wallace

Asbestos removal works in progress at the site of the old Gizo Hospital.
Photos: Don Hemmer.

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Removal of ACM at MCILI Day 1

Setting up barrier

Workers in PPE at the start of the work

Wet Spray method using base mixture

ACM Removal to test building MCILI

ACM Removal

Removal of ACM at MCILI Day 2

Workers in PPE before works starts on second day

Safe storage on site and disposal to a designated site onto vehicle

Disposal at Ranadi site in a dug out area

Standard work practice and safety procedures

- What is your safety standard procedures before doing any job? Reference to PPE on display
- What are the risks?
- What are the challenges?
- Advice to local contractors ?

Any Questions?

World Bank Procurement Opportunities

Next Workforce Skills Series Workshop

Topic: Project Management and Cashflow

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Date: 30 May 2025 Venue: HMPH

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